What is claimed is:

20. (New) A distributor for distributing a flow of fluid over at least one surface to be cooled, the distributor comprising a housing being manufactured in a single piece and having formed therein an inlet manifold, an outlet manifold and a plurality of flow cells connected between the manifolds.

each flow cell comprising a cell inlet in fluid communication with the inlet manifold, a cell outlet in fluid communication with the outlet manifold, and a flow channel for guiding a flow of fluid from the cell inlet along the surface(s) to the cell outlet.

wherein an inner wall structure of the housing defines the inlet manifold, the outlet manifold and the plurality of flow cells, and wherein the plurality of flow cells are connected in parallel between the manifolds and are arranged in parallel in two directions between the manifolds.

- 21. (New) The distributor according to claim 20, wherein each flow channel is formed to cause a plurality of changes in the direction of flow of the fluid flowing along the surface(s).
- 22. (New) The distributor according to claim 20, wherein the housing comprises at least one main opening formed to be closed in a substantially fluid tight fashion by a surface to be cooled.
- 23. (New) The distributor according to claim 22, wherein the housing comprises at least two main openings, each being formed to be closed in a substantially fluid tight fashion by a surface to be cooled.
- 24. (New) The distributor according to claim 23, wherein at least two of the main openings are arranged in the same plane or in substantially parallel planes.

- 26. (New) The distributor according to claim 23, wherein the housing comprises at least three main openings being arranged relatively to each other in such a way that a cavity is formed between them, the inner wall structure being arranged within said cavity.
- 27. (New) The distributor according to claim 20, wherein the housing comprises an inlet opening for leading fluid to an inner part of the housing and an outlet opening for leading fluid out from the inner part of the housing, the inlet opening being in fluid communication with the inlet manifold, and the outlet opening being in fluid communication with the outlet manifold.
- 28. (New) The distributor according to claim 27, wherein the inlet opening and the outlet opening are formed on an outer surface of the housing.
- 29. (New) The distributor according to claim 28, wherein the housing comprises a substantially plane surface having the inlet opening and the outlet opening formed therein, and having the inner wall structure formed on one side thereof.
- 30. (New) The distributor according to claim 20, wherein the inner wall structure delimits at least one inner flow cell for distributing fluid over a central part of the surface(s) to be cooled and at least one outer flow cell for distributing fluid over a peripheral part of the surface(s) to be cooled.
- 31. (New) The distributor according to claim 20, wherein the inner wall structure delimits a meandering flow path along the surface(s) in each flow cell.

- 32. (New) The fluid-coolable unit for removing heat from a heat source, the unit comprising a plate heated by the heat source and a distributor according to claim 20 for distributing a flow of cooling fluid over a surface of the plate.
- 33. (New) The fluid-coolable unit according to claim 32, wherein the unit comprises two plates, each being heated by a heat source, and wherein the distributor is adapted to distribute a flow of cooling fluid over a surface of each of the plates.
- 34. (New) The use of a unit according to claim 32 for removing heat from an electronic circuit.
- 35. (New) The fluid-coolable electronic unit, the unit comprising an electronic circuit encapsulated in a circuit module having an outer surface, and a distributor according to claim 20 for distributing a flow of cooling fluid over the surface.